Urinary Tract Infections (UTI)

Diagnosis

- **First, ask about SYMPTOMS**
  - Acute cystitis: dysuria, frequency, urgency, suprapubic pain[1,2]
  - Pyelonephritis: fever, rigors, flank pain[1]
  - Catheter-associated UTI (CAUTI): subrapubic pain and fever; residents with catheters may not report dysuria, frequency, or urgency[2,3]
- If UTI symptoms present, obtain a urinalysis (UA) and culture
  - A positive UA shows evidence of inflammation (e.g., elevated white blood cells)
  - A positive urine culture is defined as ≥100,000 cfu/mL of a urinary pathogen[4] (≥1,000 in residents with urinary catheters)[1]
- If a chronic indwelling catheter is in place, remove and replace it before sending UA and culture[4]
- Do not start antibiotics in residents with a positive UA and/or culture until confirming that relevant symptoms are present.[5-8]
- UTI in males in the absence of obstructive pathology (e.g., enlarged prostate, renal stone, stricture) or urinary catheter is uncommon.[1,9,10]

Supportive Care

- Encourage oral hydration.[1]
- Consider phenoazopyridine (pyridium) to relieve urinary pain.[11]
- For residents with dysuria that does not resolve with antibiotics, assess for other causes such as vaginal atrophy, yeast infection, enlarged prostate, and sexually transmitted infections.[12,13]
- In men, lower urinary tract symptoms may be caused by overactive bladder or, more commonly, by benign prostatic hyperplasia (BPH) and consequent bladder outlet obstruction.[1,9,10]

Treatment

Assess prior urine culture data, as previous antibiotic susceptibility patterns can help guide antibiotic choice.

- **Uncomplicated acute cystitis**[13]
  - Oral therapy preferred; avoid fluoroquinolones
  - [Place local treatment recommendations here]
  - [Place local treatment recommendations here]
- **Uncomplicated pyelonephritis in women**[14]
  - Fluoroquinolones and trimethoprim/sulfamethoxazole are preferred given excellent penetration into the kidney; their use as empiric therapy should be based on local *E. coli* susceptibility data.
  - [Place local treatment recommendations here]
  - [Place local treatment recommendations here]
- **Complicated UTI**[3,12]
  - Remove and do not replace urinary catheters whenever possible.
  - If concern for obstructive pathology or urosepsis, determine if resident requires transfer to an acute care facility for evaluation and management.
  - [Place local treatment recommendations here]
  - [Place local treatment recommendations here]

Duration

Uncomplicated acute cystitis	Nitrofurantoin or cephalosporin: 5 days[7] Trimethoprim/sulfamethoxazole (TMP/SMX): 3 days[14]
Uncomplicated pyelonephritis	Fluoroquinolone: Levofloxacin: 5 days; Ciprofloxacin 7 days[14] TMP/SMX or IV/oral cephalosporin: 10–14 days (10 days if early response)[15,16]
Complicated UTI (including CAUTI)	3 days if lower tract CAUTI in women ≤65 years if catheter is removed/not replaced Other residents: 7 days if prompt resolution of symptoms or 10–14 days if delayed response, obstruction, or other urologic abnormality[3]

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